Data at a Glance: P/C market Concentration and Profitability

By Jennifer Gardner, NAIC Research & Actuarial Manager

This issue features an analysis of market concentration and profitability for several property/casualty lines of business. Insurer profitability results can be used in conjunction with concentration statistics to determine whether a market is attractive to insurers to enter (i.e., thereby creating greater competition) or unattractive (i.e., causing insurers that are in the market to leave). Persistently high levels of profitability could indicate that a market is failing to attract competitors, thus enabling non-competitive rates of return to be earned.

The data was derived from the *Competition Database Report* and compiled using information contained in the NAIC database, as well as information contained in the NAIC *Report on Profitability by Line by State* (Profitability Report). The Competition Database Report provides data for five personal lines and 10 commercial lines countrywide, as well as by state and territory.

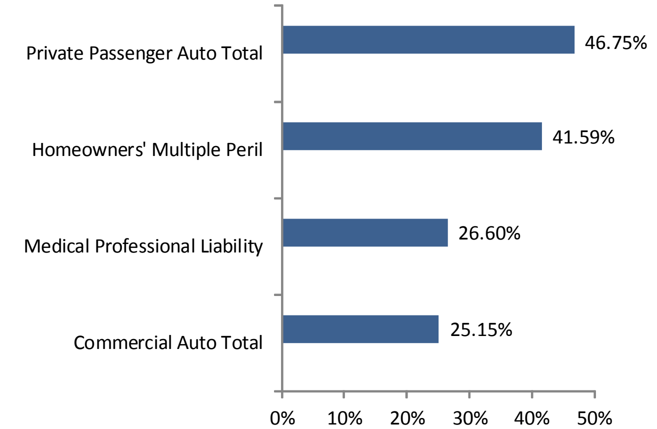
◆ Market Concentration

Market concentration reflects the degree of competition in a market. There are several methods that exist to examine market concentration. The *Competition Database Report* utilizes methods contained in the *Property and Casualty Commercial Rate and Policy Form Model Law* (#777) for determining competition. One method, the concentration ratio, assesses the market share of the four largest groups in an insurance line. This traditional measure of market concentration is often used as a rough indicator of market competition. While there is no formal way to determine market competitiveness based on this calculation, values above 50% suggest that concentration at least be given a closer look in judging the overall competitiveness of a market.

Figure 1 shows the market share of the four largest groups, denoted as a percentage, for private passenger auto, homeowners multiple peril, medical professional liability and commercial auto. As illustrated in Figure 1, none of these lines exceed the 50% concentration threshold. However, the private passenger auto and homeowners multiple peril lines of business exhibit higher concentrations of 46.75% and 41.59%, respectively.

Another widely used measure of competitiveness listed in the *Competition Database Report* is the Herfindahl-Hirschman Index (HHI). The HHI measures the size of firms in relation to the industry and indicates the amount of competition among them. It is calculated by summing the squares of the market shares (as a percentage) of all groups in the market. Although there is no precise point at which the HHI indicates a market or industry is concentrated highly enough to restrict competition, the U.S. Department of Justice (DOJ) has developed objective guidelines with regard to corporate mergers.

Figure 1: Market Share of the Four Largest Groups



Under corporate merger guidelines used by the DOJ, a post-merger market with an HHI of less than 1,000 is considered to be a competitive marketplace, a post-merger market with an HHI between 1,000 and 1,800 is considered to be a moderately concentrated marketplace, and a post-merger market in excess of 1,800 is considered a highly concentrated market. It is important to note that, because these numbers are guidelines, judgment must be used to interpret what information is provided for a particular market by its HHI.

Figure 2 on the following page illustrates the HHI for these same four lines by written premiums. Based on the HHI guidelines, all four markets are considered relatively unconcentrated and the DOJ would most likely not challenge a merger that would leave the HHI in that range.

(Continued on page 31)

[1] More information concerning the homeowners and personal automobile insurance lines can be found in the *Auto Insurance Database* report and the Dwelling Fire, *Homeowners Owner-Occupied, and Homeowners Tenant and Condominium/ Cooperative Unit Owner's Insurance* report published by the NAIC. These reports include additional data concerning average premiums and expenditures and might be useful in studying the competiveness of those markets. Along with the *Competition Database Report* and the *Profitability Report*, these reports are available for free from the NAIC store at www.naic.org/store_pub_statistical.htm.

◆ **PROFITABILITY**

The *Competition Database Report* also includes information by line by state on premiums written, number of sellers (groups), number of entries in the past five years, number of exits in the past five years, market growth over the past 10 years, market shares for risk retention groups and surplus lines insurers, and a 10-year mean of return on net worth.

The return on net worth stated in the *Competition Database Report* is obtained from the Profitability Report. It is calculated to help regulators and others evaluate the profits earned in a particular market in relation to the net worth committed to that market. Figure 3 displays the 10-year mean return on net worth for the four largest property/casualty lines of business.

Figure 4 shows the return on net worth in the property/casualty insurance industry over the past ten years. Over the period of 2004 to 2013, the property/casualty insurance industry had an average return on net worth of 6.9%.

Several companies experienced an increase in surplus as favorable loss development trends and lower than anticipated claim costs led to reserve releases. Premium growth, better accident year results and fewer catastrophic events contributed to surplus growth and higher profits for the insurance industry in 2013.

FIGURE 2: HHI BASED ON PREMIUM

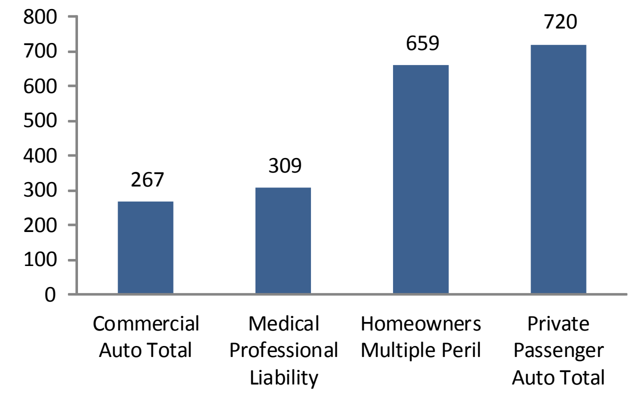


FIGURE 3: RETURN ON NET WORTH (10 YEAR MEAN)

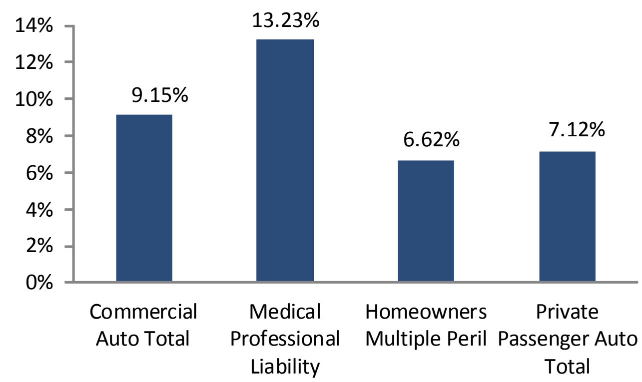
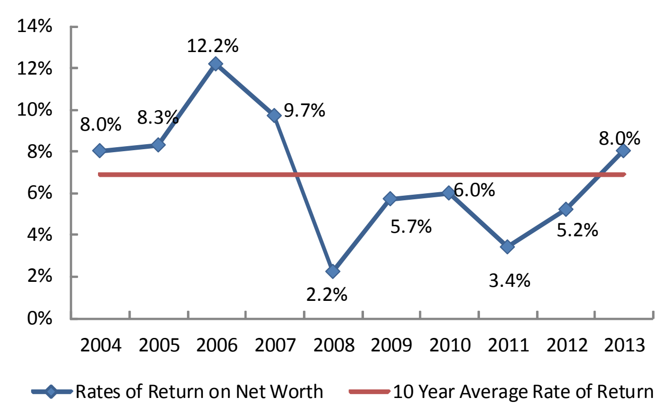


FIGURE 4: RATES OF RETURN ON NET WORTH FOR PROPERTY/CASUALTY INSURANCE



ABOUT THE AUTHOR

Jennifer Gardner is a manager in the NAIC Research and Actuarial Department. Jennifer joined the organization in 2011. She conducts economic and statistical research for the NAIC and its members. She is responsible for publishing various statistical reports including the Report on Profitability By Line By State and the Competition Database Report. She provides support for numerous NAIC working groups and assists the state insurance departments in data collection related to catastrophe. Jennifer earned a bachelor's degree in business administration with an emphasis in finance from the University of Missouri-Kansas City. Prior to joining the NAIC Research and Actuarial Department, Jennifer worked on the State Based Systems (SBS) products and services within the NAIC.

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